UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

MAY 16 2016

CERTIFIED MAIL 7014 0150 0000 2452 5356 RETURN RECEIPT REQUESTED

Mr. Paul Wachtendorf
Site Director
INEOS Nitriles USA LLC - Green Lake Complex
P.O. Box 659
Port Lavaca, TX 77979

RE: INEOS Nitriles USA LLC (INEOS) - Green Lake Complex
Final UIC Petition Reissuance Approval Decision for Wells WDW-163, 164, and 165

Dear Mr. Wachtendorf:

Effective the date of this letter, the Environmental Protection Agency (EPA) approves INEOS's request for the reissuance of an exemption to the land disposal restrictions for existing wells WDW-163, WDW-164, and WDW-165.

The land disposal restrictions prohibit the injection of hazardous waste unless a petitioner can demonstrate to EPA, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the injection zone for as long as the wastes remain hazardous. The land disposal restrictions for injection wells codified in 40 CFR Part 148 provide the standards and procedures by which petitions to dispose of an otherwise prohibited waste by injection will be reviewed and by which exemptions pursuant to these petitions will be granted or denied. Part 148 also provides for the reissuance of an exemption if the reissuance complies with the above-mentioned standards.

A letter dated March 8, 2016, informed INEOS that EPA was proposing to approve its petition reissuance request for an exemption to the land disposal restrictions. The public comment period associated with this decision began on March 16, 2016, and closed on May 2, 2016. No comments were received.

Based on a detailed technical review of the petition reissuance request and support documents, EPA has determined that this information for the DuPont Pontchartrain site meets the requirements of 40 CFR Part 148 by demonstrating that, to a reasonable degree of certainty, there will be no migration of hazardous constituents from the injection zone for 10,000 years.

The following are conditions of this land disposal restrictions exemption reissuance.

Petition Reissuance Approval Conditions

This approval of a petition for reissuance of an exemption to allow the injection of restricted hazardous wastes is subject to the following conditions, which are necessary to assure that the standard in 40 CFR §148.20(a) is met. Noncompliance with any of these conditions is grounds for termination of the exemption in accordance with 40 CFR §148.24(a)(1). This exemption is applicable to the INEOS injection Wells, WDW-163, WDW-164, and WDW-165, located at the Green Lake Complex in Port Lavaca, Texas.

1. Injection of restricted waste shall be limited to the following injection zone:

Well	Depth of Injection Zone
WDW-163	4725' - 8250'[1]
WDW-164	4715' - 8250'[2]
WDW-165	4715' - 8250'[3]

([1]WDW-163 Injection Zone depths are referenced to Kelly Bushing (KB) depths on Well 163's Dual Induction-SFL Compensated Neutron – Formation Density Log dated 10/24/83. Note that the depth for the bottom of the injection zone is approximate for WDW-163 as the well's total depth is above the specified depths.)
[2] WDW-164 Injection Zone depths are referenced to KB depths on WDW-164's Dual Induction-SFL Compensated Neutron – Formation Density Log dated 1/17/81.
[3] WDW-165 Injection Zone depths are referenced to KB depths on WDW-165's Dual Induction-SFL Compensated Neutron – Formation density Log dated 3/8/81. Note that the depth for the bottom of the injection zone is approximate for WDW-165 as the well's total depth is above the specified depth.)

The injection intervals shall be defined by the following correlative log depths:

Well	Injection Intervals	Depth of Injection Interval
WDW-163	Upper Frio Sand	5370' - 5710'[1]
WDW-164	Middle and Lower Frio Sands	6595' - 8005'[2]
WDW-165	Middle and Lower Frio Sands	6600' - 8005'[3]

([1]WDW-163 Upper Frio Sand Injection Interval depths are referenced to Kelly Bushing (KB) depths on Well 163's Dual Induction-SFL Compensated Neutron – Formation Density Log dated 10/24/83. Note that the depth for the bottom of the injection zone is approximate for WDW-163 as the well's total depth is above the specified depths.)
[2] WDW-164 Middle and Lower Frio Sands Injection Interval depths are referenced to KB depths on WDW-164's Dual Induction-SFL Compensated Neutron – Formation Density Log dated 1/17/81.
[3] WDW-165 Middle and Lower Frio Sands Injection Interval depths are referenced to KB depths on WDW-165's Dual Induction-SFL Compensated Neutron – Formation density Log dated 3/8/81. Note that the depth for the bottom of the injection interval is approximate for WDW-165 as the well's total depth is above the specified depth.)

2. For Wells WDW-163, WDW-164, and WDW-165, the cumulative monthly volume injected into each of the injection intervals shall not exceed that calculated as follows:

   Upper Frio Sand: (500 gpm)(1440 minutes/day)(number of days in that month) for WDW-163
   Middle and Lower Frio Sands: (500 gpm)(1440 minutes/day)(number of days in that month) for WDW-164 and WDW-165 combined

3. The facility shall cease injection into WDW-163, WDW-164, and WDW-165 by December 31, 2017.

4. The characteristics of the injected waste stream for WDW-163, WDW-164, and WDW-165 shall at all times conform to those discussed in Section 6.0 of the 2015 Petition Reissuance document for WDW-163, WDW-164, and WDW-165. The three-whole calendar month volume weighted surface specific gravity of the waste stream injected into each interval shall remain within a range from 1.02 to 1.07 at 60°F and 1 atmosphere with a reference temperature of 60°F. The three-whole calendar month volume weighted specific gravity average for each interval shall be calculated by multiplying each day's specific gravity value by that day's injected volume into each interval, totaling those values for the three-whole calendar month period, and dividing by that three-whole calendar month injected volume. For the purpose of the above calculation, each day's specific gravity value shall be obtained by at least one representative grab sample of the waste stream.

5. The approval for injection is limited to the following hazardous wastes:

   D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D038

   F005, F039 (for constituents listed in Table 6-1 of the reissuance document)

   K011, K013, K014

   P003, P005, P030, P063, P069, P098, P101, P106, P120

   U001, U002, U003, U007, U008, U009, U019, U044, U053, U057, U080, U112, U122, U123, U124, U125, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239

6. INEOS must petition for approval to inject additional hazardous wastes which are not included in Condition No. 5, above. The facility must also petition for approval to increase the concentration of any waste which would necessitate the recalculation of the limiting concentration reduction factor and the extent of the waste plume. Petition reissuances and modifications should be made pursuant to 40 CFR §148.20 (e) or (f).

7. INEOS shall annually submit to EPA the results of bottom hole pressure surveys for WDW-163, WDW-164, and WDW-165. These surveys shall be performed after shutting in each well for a period of time sufficient to allow the pressure in the injection interval to reach equilibrium, in accordance with 40 CFR §146.68(e)(1). The annual report shall include a comparison of reservoir parameters determined from the falloff test with parameters used in the approved no migration petition reissuance. This should include a comparison of the current year's test results for the static and flowing bottom hole pressures with the values demonstrated in the approved petition reissuance and a comparison of the test results for transmissibility [Kh/μ (mD-ft/cP)] with the transmissibilities used in the approved petition reissuance demonstration for the pressure buildup and 10,000 year plume modeling.

8. INEOS shall annually submit to EPA a radioactive tracer survey and annulus pressure test for WDW-163, WDW-164, and WDW-165.

9. INEOS shall notify EPA in the event that WDW-163, WDW-164, or WDW-165 lose mechanical integrity, prior to any well work on WDW-163, WDW-164, or WDW-165, or if INEOS plans to

plug WDW-163, WDW-164, or WDW-165. If any well work or plugging is being planned, INEOS shall also submit the procedures to EPA for review prior to commencing any work.

10. Upon the expiration, cancellation, reissuance, or modifications of the Texas Commission on Environmental Quality permits for WDW-163, WDW-164, or WDW-165, this exemption is subject to review. A new demonstration may be required if information shows that the basis for granting the exemption is no longer valid under 40 CFR §148.23 and §148.24.

In addition to the above conditions, this approval of a petition for reissuance of an exemption is contingent on the validity of the information submitted in the INEOS petition reissuance request for an exemption to the land disposal restrictions. This final reissuance decision is subject to termination when any of the conditions occur which are listed in 40 CFR §148.24, including noncompliance, misrepresentation of relevant facts, or a determination that new information shows that the basis for approval is no longer valid.

If you have any questions or comments, please call Brian Graves at (214) 665-7193 or email him at graves.brian@epa.gov.

Sincerely yours,

William K. Honker, P.E.
Director
Water Division

ecc: Ms. Jennifer Gibbs, INEOS Nitriles USA LLC
Ms. Lorrie Council, TCEQ
Mr. Richard Heitzenrater, TCEQ Region 14